

July 2023

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

IV SEMESTER

PAPER I - (Optometric Optics I & II)

QP CODE: 8440

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain in detail about different types of spectacle lens tints and coatings.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Photochromic lenses.
3. Aspherical lenses.
4. What is Fresnel prism? What are the uses of Fresnel prisms?
5. Protective lenses.
6. Brief on the steps involved in surfacing a glass lens.
7. Differentiate between individual batch method and continuous flow process during glass manufacturing.
8. Explain surfacing. Describe the steps in surfacing.
9. Classify different frame types and parts.
10. Bifocals.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Chromatic aberration. How is abbe value useful in determine the chromatic aberration in a lens.
12. Back Vertex distance.
13. Name the materials used in making of frames
14. Faults on lens surface.
15. List down four advantages of plastic safety lenses over glass lenses.
16. What are Hard Multicoatings and Antireflection Coatings
17. Describe the optical disadvantages of bifocal lenses.
18. Derive the relation between optic axis and pantoscopic tilt.
19. What are Spectacle magnifiers? Write their uses.
20. Iseikonic lenses.
21. Recumbent Prisms.

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IV SEMESTER

PAPER - II (Ocular Diseases II & Glaucoma)

QP CODE: 8441

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Classify diabetic retinopathy. Write in detail about diabetic macular edema and its management.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Clinical features of Retinitis pigmentosa
3. Write a notes on lens induced glaucoma
4. Notes on optic neuritis and its management
5. Write a note on ARMD
6. Anti-glaucoma medications
7. Closed globe injury
8. BRVO and write briefly about management
9. Congenital cataract
10. Write in detail about Accommodation

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What are the clinical condition in which nystagmus is seen
12. Classify amblyopia
13. Cycloplegic drugs
14. Side effects of PG analogues
15. Causes of secondary optic atrophy
16. Name various tonometers
17. Glaucomflecken
18. Modes of nucleus delivery in MSICS
19. Name types of Retinal detachment and state 1 condition each
20. State advantages of Phacoemulsification over SICS
21. Causes of vitreous haemorrhage

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IV SEMESTER

PAPER III - (Dispensing Optics)

QP CODE: 8442

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain on different type of progressive designs.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. IPD measurement.
3. Pantoscopic and retroscopic tilt.
4. Optic centre marking.
5. Polarizing lenses
6. Selections of frames and lens for high minus powers.
7. Write about Aspheric lenses
8. Symmetrical and asymmetrical progressive designs.
9. Glass versus plastics.
10. Frames for special purposes.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. List any two pliers with its uses.
12. Name few frame materials
13. Types of bridge.
14. Jump effect.
15. Abbe value.
16. Temple construction.
17. Segment height in bifocals.
18. Ptosis crutches.
19. Surface faults
20. Difference between hard design and soft design in PAL's.
21. Equal tint and gradual tint.

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IV SEMESTER

PAPER IV - (Optometric Instrumentation)

QP CODE: 8443

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain visual acuity and its components. Differentiate between Snellen visual acuity chart from log MAR visual acuity chart.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Explain the principle of applanation tonometer. Write its advantage over Schiotz tonometer.
3. Enlist the various illumination techniques in slit lamp and explain the specular reflection & sclerotic scatter
4. What are the advantages of Phoropter over trial lens kit
5. Write difference between direct and indirect ophthalmoscope.
6. Jackson cross cylinder.
7. Gonioscope.
8. Keratometer.
9. Lensometer
10. Retinoscope.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Mention three methods of examination under slit lamp.
12. Name few colour vision charts.
13. Name instruments used for corneal topography.
14. Name the type of perimeters.
15. Name three electrodiagnostic instruments for eye.
16. Trial frames.
17. Types of lensometer.
18. Slitlamp ophthalmoscopy
19. Pupilometers
20. Name near vision charts
21. Filters for ophthalmoscopes.

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IV SEMESTER

PAPER V - (Basic & Ocular Pharmacology)

QP CODE: 8444

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. What are Local anaesthetics? What is their mechanism of action? Write in detail about use of local anaesthetics in the eye.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Topical Glucocorticoids
3. Pilocarpine.
4. Natamycin
5. Mast cell stabilisers.
6. Classify anti-hypertensive drugs with suitable examples.
7. Acyclovir
8. Non-steroidal anti-inflammatory drugs.
9. Explain about the agents used to assist in ocular diagnosis.
10. Tear substitutes.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Oral route advantages and disadvantages.
12. Bio-availability.
13. Name some prostaglandins analogues.
14. Name three topical beta blocker eye drops.
15. Name drugs used for Mydriasis.
16. Name three immunomodulators used in ophthalmology.
17. Name three Anti VEGF drugs.
18. Name three antibacterial eye drops.
19. Name three routes of drug administration other than oral.
20. Name three drugs used for general anaesthesia.
21. Mucolytics